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THE PORT AUTHORITY OF NY & NJ

To N. Budeiri Room No. JSTC-4

From: Dominick Montalbano/Room 57W/Ext. 7100

Date 6/2/81

The attached draft specification relating to asbestos is for your review and comment as we discussed this morning by telephone.

D. Montalbano, P.E.
Engineer of Design
Airports and WTC

DM:mm
Att.

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PLAINTIFF'S EXHIBIT
PX-650

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SECTION

PROTECTIVE MEASURES WHEN WORKING IN EXISTING ASBESTOS - FIREPROOFED AREAS

PART 1 - GENERAL

1.01 RELATED CONSTRUCTION SPECIFIED IN OTHER SECTIONS.

A. Replacement and patching of fireproof coatings on existing structural members.

1.02 GENERAL DESCRIPTION

A. The Section covers the protective measures to be taken by the Contractor when performing work on or adjacent to asbestos-fireproofed structural members, so as to prevent the release of asbestos fibers into the environment and to provide worker protection from hazardous levels of asbestos fibers during construction operations.

1.03 REGULATIONS

A. Comply with the applicable requirements of the U.S. Environmental Protection Agency (EPA) Regulations, National Emissions Standards for Asbestos and the Occupational Safety and Health Administration (OSHA) Asbestos Regulations, Section 1910.1001.

B. Have copies of said regulations in view at the work site.

1.04 QUALITY ASSURANCE

A. The Contractor and his workers shall attend or shall have attended training courses dealing with occupational safety and the health hazards associated with asbestos exposure, respirator use, decontamination and OSHA regulations.

B. Written notification to the EPA National Emissions Standards for Hazardous Air Pollutants (NESHAPS) Coordinator is required at least ten days before removing or disturbing asbestos fireproofing. (Mr. Marcus Kantz, Air & Hazardous Materials Division, USEPA, Room 802, 26 Federal Plaza, New York, N.Y. 10007 (212) 264-9538.

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1.05 SUBMITTALS

A. Submit evidence of attendance at training courses and written notification to EPA as required above.

1.06 JOB CONDITIONS

A. The Contractor is advised that all existing asbestos fireproofing is encapsulated with a sealant which prevents the release of asbestos fibers unless the fireproofing is disturbed or damaged.

B. Protective measures must be taken when the encapsulated asbestos fireproofing is cut into or removed or when the sealant coating is broken, exposing the asbestos fibers.

C. The Contractor shall limit asbestos fireproofing removal to the absolute minimum required to properly make connections to the fireproofed structural members as detailed on the drawings.

D. The Contractor is further advised that unnecessary additional removals of, or damage to, asbestos fireproofing may substantially increase asbestos fiber levels, thus requiring the Contractor to institute protective measures in addition to those specified herein. Such additional protective measures may include, without limitation, area isolation, portable showers and air monitoring tests. Additional protective measures, if required by EPA and OSHA regulations, shall be provided at the Contractor's expense.

PART 2 - PRODUCTS

2.01 RESPIRATOR MASKS

Equal to "Comfo II Type 'F'" as manufactured by Mine Safety Appliance Co. The use of paper type, single use masks will not be permitted. Furnish sufficient quantity of filters so that workers can change filters during the work day.

2.02 DISPOSABLE CLOTHING

Disposable full body coveralls, head covers, gloves and foot covering fabricated of reinforced paper.

2.03 PLASTIC SHEETING

Polyethylene, 6 mils minimum thickness, for protecting floors, fixed equipment and air supply and return grilles.

2.04 DUCT TAPE

Commercially available fabric type.

2.05 DISPOSAL BAGS

Sealable polyethylene, 6 mils minimum thickness.

2.06 DISPOSAL DRUMS

Fiber or metal, 30 gallon capacity, minimum.

2.07 WETTING AGENT

"Aqua-Gro" as manufactured by Aquatrols Corp. of America, 1400 Suckle Highway, Pennsauken, N.J. 08110 or approved equal.

2.08 CAUTION SIGNS AND LABELS

As prescribed by OSHA regulations, commercially printed, as manufactured by Ready Made Sign Co., L.I.C., N.Y. Hand lettered signs and labels will not be permitted.

PART 3 - EXECUTION

3.01 WORKER PROTECTION

A. Workers shall wear disposable clothing and properly fitted respirator masks at all times within each work area from the time of initial penetration of the fireproofing sealant until all work has been completed, the fireproofing restored and final clean-up accomplished.

B. Without exception, all workers

1. Shall remove street clothes within the designated changing area and put on disposable clothing and cleaned respirator masks before entering the work area.

2. Prior to leaving work area, shall remove and deposit all disposable clothing and respirator masks at the perimeter of the work area and proceed to the changing area and change into street clothes.

3. Shall not eat, drink, smoke, chew gum or chew tobacco in the work area. To eat, drink or smoke, workers shall remove and deposit all disposable clothing and respirator masks at the perimeter of the work area and change into new, clean disposable clothing in the changing area. This new disposable clothing can then be used to re-enter the work area along with a clean respirator mask.

C. Protected workers shall pick up and clean respirator masks in a separate area by washing. All equipment, tools, etc. shall be cleaned prior to removing them from the work area.

3.02 WORK AREA PREPARATION

A. Schedule construction operations so that all required work in a given work area can be performed in such manner as to minimize the exposure of unsealed asbestos fireproofing.

B. Prior to the start of work, shut-off all ventilating systems in the area and tightly seal all registers and grilles within the work area with plastic sheeting and duct tape.

C. Set up a changing area for workers, outside of the work area at a location approved by the Engineer.

D. Movable furniture, equipment and drapes in the work area will be removed by others.

E. Cover all floors and non-removable items and equipment in the work area with plastic sheeting. Overlap adjacent sheets at least 4 inches and continuously seal all joints with duct tape.

3.03 REMOVAL OF EXISTING FIREPROOFING

A. Dry removal of fireproofing will not be permitted.

B. Puncture the encapsulated fireproofing within the limits of removal to insure proper penetration of water. Use a small test area to determine the required size and number of punctures that will permit adequate penetration.

C. Fine spray the punctured area with water so as to thoroughly saturate the fireproofing. Add wetting agent at a concentration of one ounce per five gallons of water.

D. Scrape fireproofing from the surface of the structural member using suitable hand tools. Leave a neat, straight edge at the limits of removal.

E. Do not allow removed materials to litter the floor-pick up and bag often. Place removed materials, while still wet, in disposal bags.

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3.04 CLEAN UP

A. Following the bagging of the removed asbestos material, affix OSHA labels to bags and wipe the outside with clean, damp cloths and place in OSHA labeled disposal drums for transport and disposal.

B. Wet mop hard surfaced flooring, allow to dry, and damp mop a second time with clean mop heads.

C. Thoroughly clean walls, non-movable items and equipment with damp cloths, allow to dry, and clean a second time with clean, damp cloths.

D. Clean carpeting with a high efficiency particulate absolute (HEPA) filtered vacuum equal to Model 9CA-7J as manufactured by Nilfisk. The use of conventional vacuums will not be permitted.

E. Areas are required to be virually clean after surfaces are dry. Should any residue be visible, repeated cleanings following 24 hour setting periods will be required until there is no visible residue. No entry or activity should be permitted during the settling period.

F. Remove and dispose of all used plastic sheeting, disposable clothing, filters, mops and rags used in clean up operations in the same manner as specified above for removed asbestos material.

3.05 DISPOSAL

Utilize a carter, legally authorized to handle hazardous wastes, to dispose of all drums at an approved disposal facility.

Alternate

1. For dry removal, modify specification as follows:

Paragraph 1.05 SUBMITTALS

Add the following:
"B. Details of filtered exhaust system proposed for use."

Paragraph 2.07 WETTING AGENT

Delete in its entirety and substitute the following new paragraph:
"2.07 LOCAL EXHAUST VENTILATION AND COLLECTION SYSTEM Designed, constructed, installed and maintained in accordance with the requirements specified in EPA and OSHA regulations."

Paragraph 3.03 REMOVAL OF EXISTING FIREPROOFING

Delete subparagraphs A & B and substitute the following:
"A. Provide an approved, securely anchored, portable, high efficiency particulate absolute (HEPA) filtered exhaust system with collecting hopper immediately below the portion of the fireproofing to be removed so as to effectively collect all removed fireproofing and airborne asbestos fibers released during removal operations."

Redesignate subparagraph "C.", as "B." and add the following:
"C. Maintain exhaust system in operation at least five minutes after removal operations have ceased. Reactivate during installation of connections and replacement of fireproofing until exposed asbestos has been previously sealed.

"D. Deposit all materials down through the exhaust system in sealed disposal bags."

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